

## PATENT

Atty Dkt No.: FNSR/1001.02

Express Mail No. EV335470555US

## CLAIMS:

1. A method for determining network topology, comprising:  
 - capturing and storing channelized data with a network analyzer;  
 interleaving the channelized data into a unitary data stream in chronological order; and  
 processing the unitary data stream to extrapolate indicators of network elements. (i.e. switches)

2. The method of claim 1, wherein processing the unitary data stream further comprises determining a left and right topology from the network analyzer.

3. The method of claim 2, further comprising analyzing ordered sets, source and destination IDs, and ordering of events in the unitary data trace to determine the presence of network elements.

4. The method of claim 3, further comprising analyzing open and close commands in the unitary data trace to determine the presence of a loop.

5. The method of claim 3, further comprising analyzing device addresses in the unitary data trace to determine the presence of switches.

6. The method of claim 3, further comprising analyzing ordering of events in the unitary data trace to determine the presence of stealth mode switches.

7. A method for determining network topology during a network analysis process, comprising:  
 positioning at least one network analyzer in communication with the network;  
 capturing trace data from a first and second channel on each of the analyzers;

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determining a first topology corresponding to the first channel of each said analyzer;  
determining a second topology corresponding to the second channel of each said analyzer;  
combining the first and second topologies from each of the analyzers; and  
deleting duplicate topology entries from the combined topology to generate the network topology.

8. The method of claim 7, wherein positioning the at least one network analyzer further comprises positioning the analyzers such that bidirectional communication between each network element may be captured in a data trace.

9. The method of claim 7, wherein capturing trace data further comprises storing channelized data for subsequent processing.

10. The method of claim 7, wherein determining the first and second topology comprises analyzing ordered sets, source and destination identifications, device addresses, and ordering of events in the trace data to determine the presence of network elements that correspond to the ordered sets, source and destination identifications, and device addresses.

11. The method of claim 10, further comprising analyzing open and close commands in the trace data to determine the presence of a loop on the network.

12. The method of claim 10, further comprising analyzing device addresses in the trace data to determine the presence of switches on the network.

13. The method of claim 10, further comprising analyzing ordering of events in the trace data to determine the presence of stealth mode switches on the network.

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14. The method of claim 7, further comprising displaying the network topology to a user via a graphical user interface.

7/15. A method for analyzing a network to determine the topology of the network, comprising:

Claim 15 positioning at least one analyzer in communication with the network; capturing a left channel and a right channel data trace from each of the at least one analyzers; (Abstract) ~~check~~

Claim 15 extrapolating network device presence indicators from the left and right channel data; and (3) ~~Edmunds~~ ~~check~~

Claim 15 determining the network topology from the network device indicators; and displaying the determined network topology to a user. (3) ~~Edmunds~~ ~~check~~

16. The method of claim 15, further comprising combining the left and right channel data into a unitary data stream. (2) ~~JK~~ ~~Edmunds~~ ~~check~~

17. The method of claim 16, wherein determining the network topology comprises determining a left topology and a right topology for each of the at least one analyzers and combining the left and right topologies to determine an overall topology. (Abstract) ~~check~~

18. The method of claim 15, wherein determining the network topology comprises analyzing ordered sets, source and destination identifications, device addresses, and ordering of events in the data trace to determine the presence of network devices that correspond to the ordered sets, source and destination identifications, and device addresses. (1) ~~JK~~ ~~check~~

19. The method of claim 18, wherein the ordered sets are analyzed to determine the presence of loops on the network. (1) ~~JK~~

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20. The method of claim 18, wherein the device addresses are analyzed to determine the presence of switches on the network.

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21. The method of claim 18, wherein ordering of events is analyzed to determine the presence of stealth mode switches on the network.

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